



# SWARCER NEWS

January 2010

## FREQUENCY CHANGE & REPEATER UPDATE DANNY HAMPTON — K4ITL

### Special Points of Interest

- Net nightly at 7:30 on the 145.210 repeater
- Tuesday night traders net at 8:00 PM on the 145.210 repeater
- Next meeting:  
February 1, 2010 at 7PM  
FV PresbyteriaChurch  
307 N Ennis Street  
Fuquay-Varina
- The February pre-meeting meal will be Hamburgers & dogs

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Hello to all SWARC members. This is a update on the current status of the 147.195 repeater and to alert the group to a repeater frequency change.

As most or all of you know the 147.195 has been off the air for a couple of months due to water damage to the repeater equipment. This damage was caused by a cabinet door gasket that didn't seal properly when the door was put back on the cabinet and it appears that another crew working on the tower hit the cabinet with something very heavy and further dislodged the door. Due to lots of work being done on the tower, which is still going on, lots of bad weather, and coordinating a crew that could go back up and work on the repeater, it has taken longer to correct these problems than I would have liked, but it couldn't be helped. Yours truly, due to my health now, also have to carefully pick and choose good times that I can personally make tower trips.

As most of you also know there was discussion at a prior SWARC meeting as to a possible frequency change moving the 147.195 repeater to a new frequency of 145.210. The 147.195 frequency is crowded as far as other repeaters, to our South, North, and West. Lots of our local users have been bothered by having to listen to the outputs of these other repeaters when there is the least bit of band condition enhancement and, even though we are running tone on the repeater, our local repeater's input is bothered by certain stations who operate through other repeaters on 147.195 and have strong enough base stations to be heard by our repeater. Even though these stations don't open our repeater and get retransmitted by our repeater, they do create (channel blocking) when they transmit, meaning that portables or weaker mobiles attempting to use our repeater sometimes get "blocked out temporarily" while these other distant stations are transmitting. I must hasten to add that there is no such thing as a "clear channel or frequency on 2 meters any more that can be coordinated for repeater use, but, some are better than others. I was able to take the 145.210 frequency that PCRN had coordinated in another location and move it back to Raleigh for our use here, this was a lucky situation for us and I am glad that Frank, W4FAL, the SERA NC Coordinator was able to work this out for us.

Making the 145.210 repeater operate at the Auburn/WRAL-TV tower site presented a very big technical challenge. There is a APRS digipeater operating on the tower on a frequency of 144.390 and it's antenna is in very

close proximity to our repeater antennas. When you do the math the results say that you can NOT make our frequency pair work on the tower with the 2 system's antennas as close together as they are. I initially was convinced that I couldn't make this frequency change work, but I continued to play with various frequency filter designs and talked to some people whom I have delt with and shared information with as to RF and antenna applications for a very long time and finally decided that I might just be able to make this work. I purchased one filter for the job and built another arriving at a 2 filter combination that I thought might work.

On Tuesday, January 19, 2010, the new repeater along with a new duplexer set up for 145.210 and the new filters were placed on the tower. I ran several test while on the tower which indicated there was very very minimal interference from the APRS digi which transmits at 144.390 only 220 KHZ away from our repeater's input frequency of 144.610. since Last Tuesday I have ran many tests from the ground at various times and, so far, everything seems to be working well.

Starting Wednesday, January 27, 2010, another round of work will begin at the tower site. A large 12 inch waveguide which was used for the Analog fox 50 antenna will be removed from the tower. The channel 50 analog tv antenna will also be removed. This will require rigging of the tower and lots of heavy duty work which will go on for several days. The timing may change due to the weather. After this work is done, a new commercial FM broadcast antenna and associated feedline will be placed on the tower at 600 feet. This will allow FM broadcast station WCMC 99.9 The Fan, to be moved from its current location to the Auburn tower. During the time all of this work is going on, there may be additional noise generated on the tower by cables that will be temporarily rigged on the tower to allow the adding and removing of equipment to and from the tower. We may experience times when the repeater's performance is degraded while this work is going on?

Based on my current findings I will place the 145.210 repeater in to full-time operation as of Monday January 25, 2010. The repeater has a CTCSS tone of 82.5 just as the 147.195 repeater did. I will leave the repeater operating in the carrier squelch mode until Thursday of this week giving people time to get their radios programmed properly, and, after Thursday, the repeater will require the 82.5 CTCSS access tone. The Repeater Does NOT generate a CTCSS tone of 82.5 so, if you program encode and decode tone in your radio, it may or may not work properly, you should only program Encode tone only.

#### Repeater Facts:

1. The repeater is located on the WRAL/tv tower and is housed in a weather proof cabinet located on the 1210 foot equipment platform.
2. The repeater utilizes 2 phased Decibel products dB224-E antennas located at 1300 feet above ground on the tower. These antennas are mounted on the West And south East legs of the tower.

#### Known Repeater Issues:

1. When phasing 2 antennas on a tower of this size you will have nulls in the antenna pattern which can NOT be avoided but can be (moved around) Currently, there is a null in the antenna pattern that falls over Lillington NC and I'm not sure how wide in degrees this null is?, but I suspect it is approximately 10 degrees wide? In the future, I will be asking Dave, K4MSE, to report on coverage in this area as he travels through this area going to and from work. When all the tower work gets completed and the weather becomes more predictable, I will attempt to move this Null to a area which we don't consider a primary coverage area for the repeater.

Sorry for the lengthy email but I feel it is important for the supporting members of our group to have a better understanding of the current situation as to the repeater and the tower on which the repeater is located. We are very fortunate to have the tower location we currently have! Thank all of you for your support of PCRN and here's hoping we'll have a long run of reliable repeater operation in the future!

Cordially,

Danny Hampton

K4ITL

## MINUTES OF THE JANUARY MEETING BY SELENE MONTGOMERY - KG4RMT

Southwake ARC Minutes  
January 4, 2009

The meeting was called to order at 7:04 P.M. by the President, Tim W4TAR.

Due to the absence of the Secretary, Selene KG4RMT was asked to write down the minutes of the meeting.

### TREASURER REPORT – Don NC4DH:

Balance as of 11/30/2009	\$1,638.25
Membership Dues	22.50
Radio Fund-Raiser	300.00
50/50 drawing	65.50
Dinner	213.00

### Expenditures:

Dinner	213.00
Jarsfest Tailgate space	24.00

Deposit	388.00
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Balance as of 01/01/2010	2,002.25
Less Bad check	27.50
Total	1,974.75

T-SHIRTS: Jim W4VCF has the SWARC t-shirts in various sizes available for \$15 each.

Ryan NC4RA sent word that Winter Field Day will be held on Jan. 30 and 31 on his property. Participants are welcome to camp on Friday night. Setup will be Saturday morning. The event eventually starts at noon on Saturday and goes until noon on Sunday. Attendees are asked to bring food.

Steve KA0GMY made a motion, seconded by Chris KG4WFD that the club provide \$200 to the Averys to help with Winter Field Day expenses. Motion passed.

PUBLIC SERVICE: Jack WA2YBM had no news of upcoming events. He asked that those that helped with the Fuquay Varina Christmas Parade return the club's vests.

CONSTITUTION CHANGES: Steve KA0GMY asked that the constitutional changes be read. Hank K4HM asked for clarification in the wording of the proposals. Tim read the current by-laws and the proposed changes followed by a discussion on the proposals.

Hank K4HM made a motion that no officer or board member be elected with less than 35 percent majority of the vote. If the vote leader has less than 35 percent of the vote, a runoff election would be held. There was a question on whether the meeting attendance met the quorum rule in the by-laws. Because there was no copy of the constitution available, Tim W4TAR suggested that the board of directors meet to discuss and clarify the proposals. Hank K4HM was asked to send his motion's details to the board for consideration. It was suggested that a copy of the club's constitution be available at each meeting. The proposed changes must be read two times before being voted on.

With Gino's KI4YXO approval, the February dinner will feature hot dogs, hamburgers and appropriate sides with members bringing the desserts. Reservations need to be sent to Gino by February 1.

PROGRAM: Steve KA0GMY presented a program on message handling on the nets. Topics covered included message handling whether emergency, priority, or routine; and the ARRL message format including preamble, handling instructions, text and signatures.

### ANNOUNCEMENTS:

Field Day weekend will be June 26 & 27. Steve KA0GMY will be the Field Day chairman.

Frostfest in Richmond, VA will be February 6.

RARSfest will be held on April 3. Online Ticket sales will begin soon. Hank K4HM will have tickets available at the March meeting.

50/50 DRAWING: The winner was Don NC4DH.

Respectfully submitted,

Selene Montgomery KG4RMT

## SWARC T-SHIRTS

I have arranged to have T-Shirts screen printed with a large club logo on the back and a small logo on the left front. These come in either yellow with blue logo or blue with yellow logo.

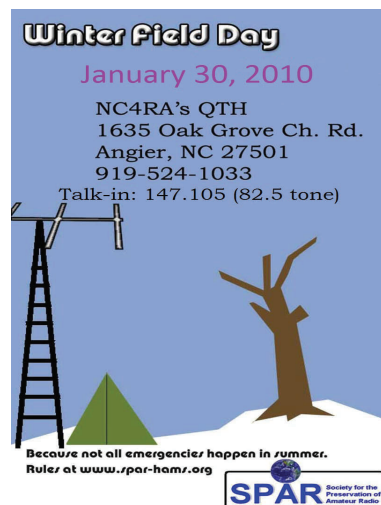
I have sizes large through 2 extra large and 4 extra large available. We are asking \$15 a piece as this a club fund

raiser. Please support the club and let me know if you are interested in getting one to wear to club functions as well as ham fests.

Jim W4VCF (w4vcf@arrl.net)

## WINTER FIELD DAY 2010

**Come out and join us this year for Winter Field Day. It will be held at NC4RA's QTH (1635 Oak Grove Church Road Angier, NC) Saturday Jan 30. We'll fire up the radios around noon, but feel free to stop by earlier if you liked to help setup some antennas. No matter if you're planning to setup, camp out, or just curious about Ham Radio; come out and see what it's all about. This is a great opportunity for you to kick those winter blues and come party with us. Plan on throwing the burgers & dogs on the grill around 2pm, oyster roast that evening and plenty of beverages & a bonfire to keep you warm!**



## LOW-TECH RADIOS CONNECT SOME HAITIANS

(CNN) -- In the brutal aftermath of Haiti's earthquake, Jean-Robert Gaillard turned to his low-tech radio for solace and for a lifeline.

When the earthquake hit, the 57-year-old from Petionville, Haiti, found most of his normal lines of communication -- his cell phone, the Internet, even his ability to walk down the street and talk to someone -- severed by the disaster.

But Gaillard used a neighbor's generator to power up his radio and connect to a handful of amateur radio enthusiasts in the United States -- many of whom were eagerly listening to radio static for calls like his.

Unlike many other people in Haiti, Gaillard was able to contact family members in the United States soon after the January 12 earthquake hit to tell them he had survived.

In those first hellish moments, that connection seemed like a miracle.

"It relieved the tension of my family members," he said, speaking by Skype from Haiti on Tuesday, which he says wasn't possible until more recently. "They could hear my voice. They knew that I was OK."

Much has been made about the role flashier [technologies](#) like Twitter, Skype and text messaging have played in helping disaster victims find loved ones and communicate with international aid workers. But it is worth noting that, when all else fails, the low-tech hum of a radio frequency is sometimes the only line of communication that's open.

Enthusiasts of amateur radio -- or ham radio -- are quick to use this as evidence that international aid groups and governments should rely more heavily on radio in disaster situations. Ham radio signals bounce off of a layer of charged particles in Earth's atmosphere, called the ionosphere, and, depending on the conditions, can work at times when other modes of com-

munication fail.

But amateur radio is best viewed as one of many communications options in the wake of a disaster, said Keith Robertory, manager of disaster services technology at the American Red Cross, who has been helping in Haiti relief efforts from Washington.

The best communication technology in a disaster, he said, is whatever happens to work at the time.

"Amateur radio is a very powerful tool if the amateur radio operators are in the area where the disaster occurs," he said.

"There's a window of opportunity for amateur radio operators right at the beginning [of a disaster]. ... That's where they are extremely valuable."

Because that window has now passed, cell phone connections, text messages, Twitter posts and Skype calls are becoming more significant, he said.

A 23-year-old woman, for example, [was rescued in Haiti after text messages were sent](#) from beneath the rubble of a school building.

Radio stations in Port-au-Prince, the Haitian capital, have been broadcasting almost since the earthquake, providing the only means of communication for some people, Agence France-Presse reports.

Some mobile phone towers in Haiti fell during the earthquake, and cell phone service was not returned to much of the country until at least two days after the tremors first shook the poor Caribbean nation, according to a mobile phone company operating in Haiti.

About a third of people in [Haiti](#) have access to mobile phones, compared to nearly 90 percent of people in the United States. Reports suggest Internet connections also were spotty in the earthquake's aftermath; and only about 11 percent of Haitians have access to the Web in non-disaster situations, according to the [CIA World Factbook](#).

Aid groups and journalists have relied on satellite phones, which work independently from local Internet and mobile phone infrastructure as long as the sky isn't too cloudy.

Such technology isn't commonly available for disaster victims, however.

Carol Wilson, compliance director for Trilogy International Partners, which provides mobile phone service to about 1 million people in Haiti, said 80 percent of the company's cell towers in Haiti were working as of Tuesday.

The company is donating out \$5 worth of free phone calls to its customers and is giving people double the amount of minutes they would normally get so they can catch up with loved ones and communicate with aid groups, she said.

The main problem with mobile phone connections now, she said, may be fuel, since generators are used to power most cellular towers in Haiti.

In the immediate wake of the disaster, before cell phone coverage was restored, William F. Sturridge, a ham radio operator in Flagler Beach, Florida, said he was able to connect a priest living on the remote Haitian village of Ile-a-Vache with his family members in the United States.

On Wednesday morning, the day after the earthquake hit, he said he heard a faint call of "hotel, hotel," which signifies the "HH" letters at the beginning of radio call signs in Haiti. He responded immediately.

"When other systems don't work, [radio] always works," he said. "It doesn't matter -- no matter where you are in the world ... you can get a [high-frequency] signal out and somebody will hear."

After connecting with the priest in Haiti, Sturridge said he called the man's brother to tell him his sibling had survived the earthquake.

"He was super worried," he said. "They hadn't heard from him, and it was wonderful to be able to pass the information and hear the relief in the voice."

Sturridge said he's been listening for radio calls from Haiti almost non-stop, with no sleep, since the earthquake hit a week ago. The 51-year-old is disabled, and he said the radio gives him a lifeline to the outside world as well.

"It's very difficult for someone who is bed-bound to be able to work and be able to enjoy the benefits of helping other people, so this is one way I can do this very easily," he said.



rewarding than saving a life."

While the ability for even one person to communicate with the outside world immediately after a disaster has potentially huge impact, the number of people making calls from Haiti by amateur radio appears to be very small.

Brian Crow, who has been communicating with people in Haiti by radio from outside Pittsburgh, Pennsylvania, said only three people in Haiti have made contact with the United States by ham radio since the earthquake.

Crow said his primary role has been taking calls, finding out what aid is needed, and relaying the information to Web sites collecting news about missing people.

A number of sites -- including [CNN's iReport](#) and [Google](#) -- are creating databases with information about missing people in Haiti. Other groups have put together population estimates based on satellite maps as a way for aid groups to target their relief efforts. And a site called [Ushahidi is mapping text messages](#) and calls for help in Haiti to give aid groups a better picture of dire needs for food, water and medical help.

Gaillard, the Haitian man who used ham radio to contact loved ones, said the week following Haiti's earthquake has been absolute hell.

But the fact that he could get on the radio and talk to people outside the situation made him feel connected to the world and has given him the strength to keep going.

"We are in God's hands now," he said.

## HAM CAR WITH ACCESSORIES

### HAM CAR WITH ACCESSORIES

FOR SALE - DODGE COLT - \$500.00,  
HAM RADIO ACCESSORIES \$25,000.00.



## SKYWARN INFORMATION NETS & UPCOMING EVENTS

As posted on <http://www.centralcarolinaskywarn.net/>

Every Tuesday at 9:15PM on the 146.88 repeater



## CAROLINA HELPING HAMS

No events listed.

More details and sign-up information can be found on links from the Ham public service calendar at: [www.hampublicservice.org](http://www.hampublicservice.org)

## UPCOMING HAMFESTS AND CONVENTIONS

### 2010 Charlotte Hamfest

March 13 - 14, 2010

Saturday - 8:30AM to 5:00PM

Sunday - 9:00AM to 1:00PM

<http://www.w4bfb.org/hamfest2010/hamfest.html>

For additional Hamfest information, see Hamfest Calendar on the next page under **Links of Interest**.

## PUBLIC SERVICE OPPORTUNITIES

No events listed.

More details and sign-up information can be found on links from the Ham public service calendar at: [www.hampublicservice.org](http://www.hampublicservice.org)

## PHONETIC ALPHABET

If you ever wondered? The correct words used for letters to make spelling more clear:

Alfa, Bravo, Charlie, Delta, Echo, Foxtrot, Golf, Hotel,

India, Juliet, Kilo, Lima, Mike, November, Oscar, Papa, Quebec, Romeo, Sierra, Tango, Uniform, Victor, Whiskey, X-ray, Yankee, Zulu

## LINKS OF INTEREST



South Wake ARC Club website: <http://www.southwakearc.com/>

South Wake ARC Yahoo group: <http://groups.yahoo.com/group/southwakearc/>



Piedmont Coastal Repeater Network: <http://pcrn.net/>

Carolina 440 linked system: <http://www.carolina440.net/>



Central Carolina Skywarn: <http://www.centralcarolinaskywarn.net/>

SouthEastern Repeater Association: <http://www.sera.org/>



Wake County CERT: <http://www.wakecountycert.org/>

Wake County ARES/RACES: <http://www.wakeares.org/>



ARRL: <http://www.arrl.org/>

FCC Universal Licensing System: <http://wireless.fcc.gov/uls/index.htm?job=home>



Hamfest calendar: <http://k4hm.net/calendar.php>

NC Canine Emergency Response Team: <http://www.nccert.org/>



Capital Area Radio Testing Group: <http://www.cartgroup.org>

## TRIANGLE EAST AMATEUR RADIO ASSOCIATION 2010 VE SESSION SCHEDULE AND INFORMATION!

The Triangle East Amateur Radio Association (TEARA) is pleased to announce its 2010 schedule for amateur radio examinations. Exams are given the third Saturday of every month except July and December at 9:30 a.m. at the Red Cross office in Smithfield, North Carolina. The Red Cross is located at 801 South Third Street in downtown Smithfield. Additional directions are and a map link are given below.

For 2010, the dates are:

February 20

March 20

April 17

May 15

June 19

\*\*\* No session in July

For more information go to: <http://teara-ve.ka4puv.com/>



## SOUTH WAKE AMATEUR RADIO CLUB

Address	Officers			
PO Box 1565 Fuquay-Varina, NC 27526	President:	Tim Ruffin	W4TAR	<a href="mailto:timruffin@earthlink.net">timruffin@earthlink.net</a>
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	Secretary:	Jennifer Avery	KI4TFO	<a href="mailto:jennavery@charter.net">jennavery@charter.net</a>
	Treasurer:	Donn Harris	NC4DH	<a href="mailto:nc4dh@embarqmail.com">nc4dh@embarqmail.com</a>
	Membership Director:	Ryan Avery	NC4RA	<a href="mailto:rwavery@charter.net">rwavery@charter.net</a>
	Director at Large:	Jim Williams	W4VCF	<a href="mailto:w4vcf@arrl.net">w4vcf@arrl.net</a>
	Director at Large:	Jim Young	K9RII	<a href="mailto:mentor7388@hotmail.com">mentor7388@hotmail.com</a>

## Public Service Through Amateur Radio

South Wake ARC's primary purpose is to further the Amateur Radio Service through programs, activities, and education, in order to promote the radio knowledge, fraternalism and individual operating efficiency of our members. Further, it shall be our purpose to support the welfare of our community through public service including radio communications for emergency situations and public events, and through providing information, training, and assistance to individuals or organizations with an interest in the Amateur Radio Service.

## Newsletter Editor Corner

All articles for next edition SWARKer News needs to be sent to editor by the 15th of February.

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